REMARKS/ARGUMENTS

Favorable consideration of this application in light of the following discussion is respectfully requested.

Claims 1-18 are pending in the application with Claims 13 and 16 by the present amendment.

In the outstanding Office Action, Claims 1-18 were rejected under 35 U.S.C. § 112, first para., as failing to comply with the written description requirement; and Claims 13-18 were rejected under 35 U.S.C. § 112, second para., indefinite. Otherwise, the claims were indicated as including allowable subject matter subject to overcoming the grounds for rejection and avoiding the introduction of new matter.

Applicants acknowledge with appreciation the indication that the claims are allowable, subject to overcoming the grounds for rejection and avoiding the introduction of new matter. Since Applicants consider that the original disclosure includes written description of the claimed invention, Applicants respectfully traverse the rejection under 35 U.S.C. § 112, first para., for the reasons given hereinafter.

In response to the rejection under 35 U.S.C. § 112, second para., the informalities noted have been corrected herewith. Accordingly, this ground for rejection is believed to have been overcome.

Briefly recapitulating, as described in more detail by reference to the specification hereinafter, an adhesive conventionally used for manufacturing a coil of an electric rotating machine has been first required to have mutual dissolubility with an impregnating resin. An epoxy resin is selected as the adhesive since the impregnating resin is an epoxy resin. However, even though such an adhesive having mutual dissolubility with an impregnating resin is simply used, even a large amount of inorganic particles supported by the adhesive

flow out, while the impregnated resin is squeezed out by heat pressing. Therefore, the improvement of thermal conductivity cannot be expected.

In the present invention, the above-described "adhesive" comprises not only a first component having mutual dissolubility with the impregnating resin, but also a second glue component insoluble in the impregnating resin. The amount of flow of inorganic particles can be reduced without having any adverse influence on molding by heat pressing. The improvement of thermal conductivity can thus be expected.

The claimed subject matter of "an adhesive comprising a first component having mutual dissolubility with the impregnating resin" is supported by the descriptions at page 7, line 14 to page 8, line 18 of the specification when considered in conjunction with the disclosure at page 12, line 6 through page 7, line 27 of the specification.

As is evident from the description at page 7, line 14 to page 8, line 18 of the specification, in the conventional pre-preg insulation system, "the adhesive is required to have mutual dissolubility with the impregnating resin." (page 7, lines 26-27) As a result, in the conventional system, "the adhesive and the impregnated resin are dissolved each other and the resin viscosity temporarily decrease at the early stage of heat treatment. For this reason, a part of the resin including the inorganic particles flows out of the insulation layer." (page 8, lines 14-18) This phenomenon, discussed further at page 8, lines 19-27, is a problem being addressed and solved by the present invention.

In the experiments performed by the inventors and described at page 12, line 7 through page 13, line 27, Applicants' disclosure informs persons skilled in the art that the above problem in the conventional system, which uses "an adhesive comprising a first component having mutual dissolubility with the impregnating resin" (page 7, lines 26-27), is solved by the addition of a further component to the conventional adhesive, that component being polyvinyl alcohol in an additional amount between 0.5 wt% and 5 wt% is added to the

first component. As described at page 13, lines 1-6, when an insufficient amount of additional component insoluble in the impregnating resin occurs, the same problem existing in the conventional system occurs, i.e., "the inorganic particles 14 flow out of the insulation wall 8 with heat pressing at the formation of the insulation wall," which problem occurs because, as in the conventional system, the other component of the adhesive has mutual dissolubility with the impregnating resin. Thus Applicants' disclosure informs persons skilled in the art of the problem encountered in the conventional system in which an adhesive having only one component having mutual dissolubility with the impregnating resin is used, and teaches persons skilled in the art to solve this problem by adding to the adhesive have the dissoluble component a further component insoluble in the impregnating resin. It is thus clear that Applicants were in possession of the claimed invention at the time of filing the present application and it is respectfully submitted that the pending claims are supported by the written description as required by 35 USC §112, first paragraph. The only question seems to be whether the original disclosure was sufficiently literal in stating the claimed invention. In that regard, MPEP 2163.07(a) states:

> **2163.07(a) Inherent Function, Theory, or Advantage**
>
> By disclosing in a patent application a device that inherently performs a function or has a property, operates according to a theory or has an advantage, a patent application necessarily discloses that function, theory or advantage, even though it says nothing explicit concerning it. **The application may later be amended to recite the function, theory or advantage without introducing prohibited new matter**. *In re Reynolds*, 443 F.2d 384, 170 USPQ 94 (CCPA 1971); *In re Smythe*, 480 F. 2d 1376, 178 USPQ 279 (CCPA 1973). "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of

> circumstances is not sufficient.'" *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted). [Emphasis added]

This MPEP provision is on point because, as clearly proven by the above citations from the specification, the claimed invention "performs a function or has a property, operates according to a theory or has an advantage," and "the missing descriptive matter is necessarily present in the thing described in the [specification], and that it would be so recognized by persons of ordinary skill." To state explicit support for the claimed subject matter, the specification has been amended to recite that in addition to the adhesive component insoluble in the impregnating adhesive, the additional component to the impregnating adhesive, according to Applicants' invention, has mutual dissolubility with the impregnating resin. No new matter is added, for the same reasons as above noted with respect to the claimed subject matter.

Accordingly, withdrawal of the outstanding grounds for rejection is believed to be in order and is respectfully requested.

Consequently, in view of the present amendment and in light of the above discussion, Claims 1-18 are believed to be in condition for formal allowance. An early and favorable action to that effect.

Respectfully submitted,

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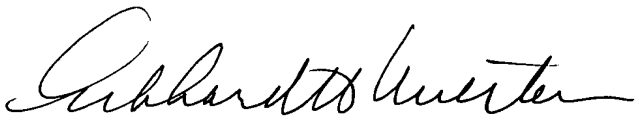

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